

*Edwin D. Garlepp*  
remaining amplified signal light beams as an output laser beam to signal light outputting fiber

70.

REMARKS

Favorable consideration of this application, as presently amended, is respectfully requested.

The present amendment amends the specification to correct a typographical error. This change is not believed to raise a question of new matter.

Accordingly, an examination on the merits of the application is believed to be in order, and an early and favorable action is respectfully requested.

Respectfully submitted,

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IN THE SPECIFICATION

Pages 3-4, paragraph [0009], please delete the paragraph and insert the following new paragraph:

The WDM coupler 62 multiplexes the laser beams outputted from the polarization-multiplexing couplers 61a and 61b, and outputs the multiplexed light beams as a pumping light beam to external isolator 60, which outputs the beam to amplifying fiber 64 via WDM coupler 65. Signal light beams to be amplified are input to amplifying fiber 64 from signal light inputting fiber 69 via [polarization-independent] polarization-dependent isolator 63. The amplified signal light beams are Raman-amplified by being multiplexed with the pumping light beams and input to a monitor light branching coupler 67 via the WDM coupler 65 and the [polarization-independent] polarization-dependent isolator 66. The monitor light branching coupler 67 outputs a portion of the amplified signal light beams to a control circuit 68, and the remaining amplified signal light beams as an output laser beam to signal light outputting fiber 70. The control circuit 68 performs feedback control of a light-emitting state, such as, an optical intensity, of each of the semiconductor light-emitting elements 180a through 180d based on the portion of the amplified signal light beams input to the control circuit 68 such that the resulting Raman amplification gain is flat over wavelength.

Page 21, paragraph [0074], please delete the paragraph and replace it with the following paragraph:

Polarization-multiplexing couplers 61a and 61b output polarization-multiplexed laser beams having different wavelengths to a WDM coupler 62. The WDM coupler 62 multiplexes the laser beams outputted from the polarization multiplexing couplers 61a and 61b, and outputs the multiplexed light beams as a pumping light beam to amplifying fiber 64 via WDM coupler 65. Thus, as seen in Figure 13, a Raman amplifier using a laser module in accordance with the present invention does not include an external isolator such as isolator 60 of Figure 17. Therefore, the loss associated with the external isolator, as discussed above, is eliminated from the Raman amplifier system of Figure 13. Signal light beams to be amplified are input to amplifying fiber 64 from signal light inputting fiber 69 via [polarization-independent] polarization-dependent isolator 63. The amplified signal light beams are Raman-amplified by being multiplexed with the pumping light beams and input to a monitor light branching coupler 67 via the WDM coupler 65 and the [polarization-independent] polarization-dependent isolator 66. The monitor light branching coupler 67 outputs a portion of the amplified signal light beams to a control circuit 68, and the remaining amplified signal light beams as an output laser beam to signal light outputting fiber 70.